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Joint Program Executive Office for Chemical and Biological Defense Medical Virtual Industry Day

Improved Nerve Agent Treatment System (INATS)

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Distribution Statement A: Approved for public release; distribution is unlimited.



Disclaimer



- While we are presenting our currently planned Business Opportunities, we recognize that these may change given our changing fiscal environment and the strategic guidance of the Department of the Defense.
- New starts and increases to production levels in FY13 will be delayed until the Appropriations Bill is passed.



Capability Gap & Product Description



Capability Gap:

- Fielded nerve agent antidotes do not adequately protect the operational force against traditional nerve agents and NTAs
- Pyridostigmine Bromide (PB) is FDA approved as a pretreatment for only soman
- Pralidoxime (2-PAM), FDA-approved for the treatment of nerve agent intoxication, may not provide adequate treatment against all traditional and non-traditional agents

Product Description:

An enhanced treatment regimen consisting of broad spectrum oxime to replace the fielded oxime 2-PAM and expanded pretreatment indications for PB

This is a replacement product to the currently fielded Antidote Treatment – Nerve Agent-Autoinjector (ATNAA), atropine and 2-PAM

Temperature stable formulation that offers increased chemical stability and shelf-life





Product Fit in the Family of Systems



 INATS is a broad spectrum therapeutic that works in conjunction with pre- and post-medical countermeasures to provide increased survival, against traditional and non-traditional agents



^{*} With typical dose & against various agents of interest



Product Schedule



Improved Nerve Agent Treatment System (INATS)																																
	PRIOR				FY12				FY13			FY14				FY15				FY16				FY17				FY18				
	FY08	FY09	FY10	FY11	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Milestones & Phases				Techr	nnology Development P				hase 📤				4				Engineerir Devel				g & Manufacturing opment Phase								4			
											Pre- EMD		MS B																		MS C	
Source Selection & Contract(s) Activities											RFF		C	A contra Award	ct 1																	
Capabilities Documents	i d D																									△ CPD						
Reviews and Audits	Submi			Type Meeti e-con											Typ Mee	e C eting	SPA					I I	End of Phase Type Meetin	of F 22 B ng	re-Ni Meeti	DA ng Su	NDA bmiss		A Rev		FDA pprov	⁄al
Manufacturing Activities			En		ed For relopr I-6 E& Studi	ment	tion								Clini	ical Tr	rial Ma	aterial	l La	arge S	cale I	/lanuf	factur	ing		Stat	oility					
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Acquisition Strategy:

CBMS-MITS will partner with commercial entities during the Engineering and Manufacturing Phase (EMD) Phase to ensure the development and manufacture of the INATS in accordance with FDA guidelines

Contracting Strategy:

 14 Sep 2012: Released Request for Information (W911QY-12-S-0022) – Advanced Development of Nerve Agent Therapeutic(s) to Treat Nerve Agent Intoxication



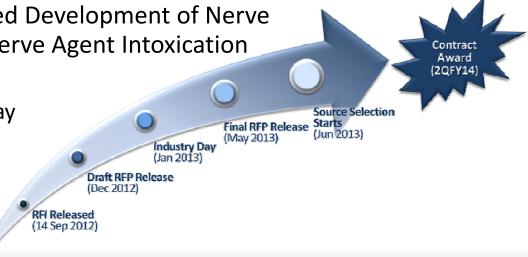
- 15 Nov 2012: Virtual Industry Day

- Feb 2013: INATS Industry Day

Request for Proposal (RFP)

- Dec 2012: Release Draft RFP

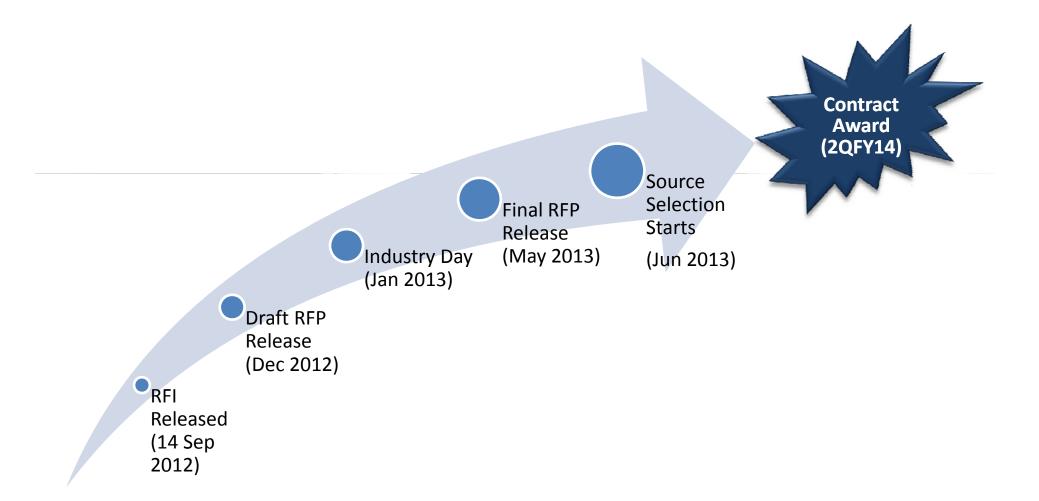
- May 2013: Release Final RFP





Contracting Strategy







Technology Gap



Current

Business Motivation

Future

Traditional Agents

Provide Warfigher <u>FDA approved</u> post-symptomatic treatment for the adverse medical effects of nerve agents and NTAs

Emerging Threats

PB Pretreatment Protection Against Soman Provide Warfighter <u>FDA approved</u>
pretreatments to provide comprehensive
protection against adverse effects of
exposure to nerve agents and NTAs

PB Pretreatment-Expanded Indications

Dual-Chambered Autoinjector Aqueous Formulations

Provide Warfighter with reduced number of injections and logistics burden associated with carrying multiple autoinjectors

Single Chamber Autoinjector Nonaqueous Formulations



- Anticipate 2QFY14 contract award
 - Phase 2 human clinical safety study
 - Toxicology and definitive animal efficacy studies
 - Manufacturer of improved oxime and delivery system
 - Studies to support expanded pretreatment indications for PB
- As funding permits, explore opportunities for dual prototyping and improvements to the existing nerve agent treatment regimen through task order vehicles and CBMS BAA (CBMS-BAA-07-01)
 - Studies to refine the MMB4 enhanced formulation
 - Studies to evaluate candidate oximes in support of oxime risk mitigation strategy with international partners
 - Studies to investigate auto-injector refinements



Collaboration Partnerships



- Active participation on INATS IPT as well as PB IPT and tiger teams
- On going studies to evaluate oximes against emerging threats and the use of PB for other indications
- Ability to contract work with agent

USAMRICD



- Active IPT participation
- Provide evaluation of **Technology Readiness Level** prior to decision reviews
- Support review of technical reports and proposals through the CBMS-BAA
- **DTRA BAA Solicitation** (HDTRA1-12-CHEM-BIO-BAA)







- Active IPT participation
- **Product Sponsor for** MMB4 DMS **Investigational New Drug** Application (IND #75,951)
- **USAMRMC BAA** Solicitation (W81XWH-**BAA-13-1**)





- Active IPT participation; BARDA interest in improved oxime for **CHEMPACKS**
- Anticipate future NIH IPT participation
- BARDA BAA Solicitation (BARDA-CBRN-BAA-12-100-SOL-00011)





LEGEND:

- DTRA/JSTO: Defense Threat Reduction Agency/ Joint Science & Technology Office
- **USAMRICD:** United States Army Medical Research Institute of Chemical Defense
- USAMMDA: United States Army Medical Materiel Development Activity
- HHS: Health and Human Services
- **BARDA**: Biomedical Advanced Research & Development Authority



Points of Contact





Learn how we partner with industry, other government agencies and academia. www.jpeocbd.osd.mil/packs/Default.aspx?pg=1207





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Acronym Glossary



ADM: Acquisition Decision Memorandum or Advanced Development & Manufacturing

AoA: Analysis of Alternatives

APUC: Acquisition Procurement Unit Cost

AS: Acquisition Strategy

BARDA: Biomedical Advanced Research and

Development Authority **BBP:** Better Buying Power

BLA: Biologics License Application

BSV: Biosurveillance

CBMS: Chemical Biological Medical Systems **CDD:** Capability Development Document

CPD: Capability Production Document

cGMP: Current Good Manufacturing Practice

CONOPS: Concept of Operations **CPIF:** Cost Plus Incentive Fee

DARPA: Defense Advanced Research Projects

Agency

DHS: Department of Homeland Security

DoD: Department of Defense

DSTL: Defense Science Technology Laboratory

DTRA/JSTO: Defense Threat Reduction
Agency/Joint Science and Technology Office

EMD: Engineering Manufacturing and Development

EPA: Environmental Protection Agency **FDA:** US Food & Drug Administration

FFP: Fixed Firm Price

FOC: Full Operational Capability

FRP: Full Rate Production

FY: Fiscal Year

HHS: Health and Human Services

IBR: Integrated Baseline Review

ICD: Initial Capabilities Document

IND: Investigational New Drug

IOC: Initial Operational Capability

JILA: Joint Integrated Logistics Assessment

JPEO: Joint Program Executive Office(r)

JPM: Joint Project/Product Manager

JPM-ADM: Joint Project Manager- Advanced

Development & Manufacturing

JPMO: Joint Project/Product Management Office

JRO-CBRND: Joint Requirements Office for Chemical, Biological, Radiological, and

Nuclear Defense

JVAP: Joint Vaccine Acquisition Program

KPP: Key Performance Parameter

KSA: Key System Attribute **LCCE:** Life Cycle Cost Estimate

LCMP: Life Cycle Management Plan

LCSP: Life Cycle Sustainment Plan **LRIP:** Low Rate Initial Production

MDA: Milestone Decision Authority

MITS: Medical Identification and Treatment

Systems MS: Milestone

MSR: Manufacturing Sustainment Rate

NDA: New Drug Application

NGDS: Next Generation Diagnostic System

NIH: National Institutes of Health **NTA:** Non-Traditional Agent

O&M: Operation and Maintenance

OASD (HA): Office of the Assistant Secretary of

Defense (Health Affairs)

OGA: Other Government Agency

OSD (NCB/CB): Office of the Secretary of Defense (Nuclear/Chemical Biological)

OSTP: Office of Science and Technology Policy

OUSD(C): Office of the Under Secretary of Defense (Comptroller)

PAIO: Joint CBRN Defense Program Analysis Integration Office

RDT&E: Research, Development, Test and Evaluation

RFP: Request For Proposal

SEP: Systems Engineering Plan

SNS: Strategic National Stockpile

SPA: Special Protocol Assessment **TD:** Technology Development

TDP: Technical Data Package

TED: Troop Equivalent Dose

THP: Trained Health Care Provider

TMT: Transformational Medical Technologies

TOA: Total Obligation Authority

TRA: Technology Readiness Assessment

TRL: Technology Readiness Level

USAMMDA: US Army Medical Materiel Development Activity

USAMRIID: US Army Medical Research Institute

of Infectious Disease

USAMRICD: US Army Medical Research Institute of Chemical Defense

USAMRMC: US Army Medical Research and

Materiel Command